DOCUMENT RESUME

ED 264 436 CE 043 163

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TITLE Directions in Vocational Education for Limited English-Proficient Students and Adults. Occasional Paper No. 109.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
PUB DATE 85
NOTE 36p.
AVAILABLE FROM National Center Publications, National Center for Research in Vocational Education, 1960 Kenny Road, Columbus, OH 43210-1090 (OC109--$3.50).
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Bilingual Education; *Educational Improvement; *Educational Needs; Educational Opportunities; English (Second Language); Immigrants; *Limited English Speaking; Postsecondary Education; Refugees; Role of Education; Secondary Education; *Second Language Instruction; *Vocational Education

ABSTRACT

The United States has a large and rapidly growing population of limited English-proficient (LEP) students and adults. This population presents a distinct challenge to vocational educators. Some insights learned during the past decade suggest beneficial approaches to this problem. Four trends in current second-language acquisition research and language teaching are particularly relevant to the delivery of vocational education to LEP persons. These trends are the development of competency-based, functional, and task-oriented language learning programs; the increasing specialization of language instruction and the concomitant combining of English and content-area instruction; the distinction between communicative and cognitive language skills; and the development of a theory of language that maximizes meaningful input as its basis. A great deal has also been learned during the past few years about refugee and immigrant education programs, namely, that language needs, cultural orientation needs, other educational needs, support services needs, and vocational training needs must be met. In addition, insights have come from bilingual vocational training and instructor training programs, such as program models, bilingual program components, strategies for vocational instruction of LEP students, and coordinated vocational and English-language instruction. However, much more needs to be done in the future. Areas that need further investigation include individual assessment and program evaluation, development of vocational materials and vocational language materials in English and the native language, revision of licensing and certification procedures, and creation of programs to meet the needs of the least and most educated LEP students. (KC)

Directions in Vocational Education for Limited English-proficient Students and Adults

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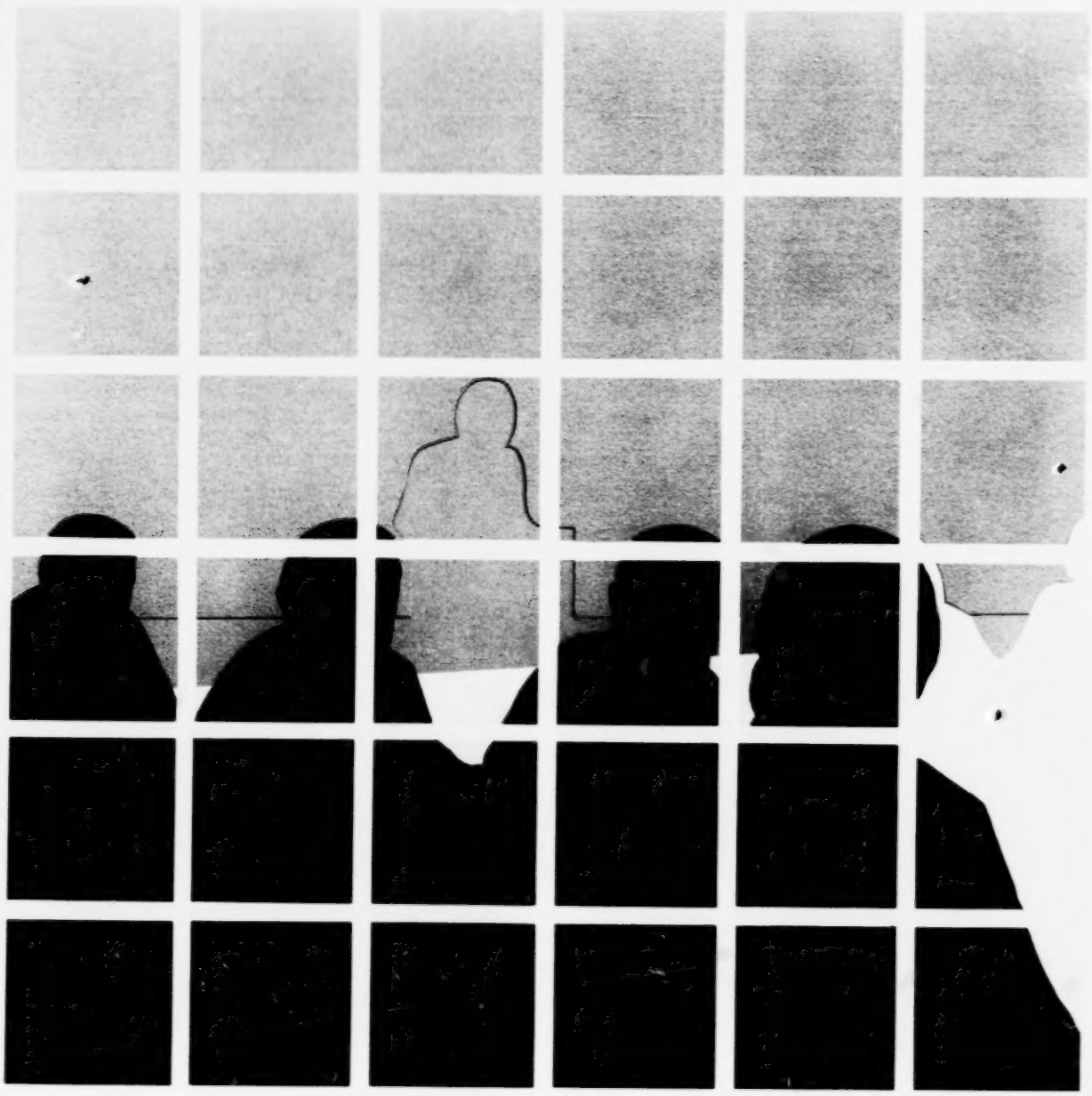

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Occasional Paper No. 109

DIRECTIONS IN VOCATIONAL EDUCATION FOR LIMITED ENGLISH-PROFICIENT STUDENTS AND ADULTS

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1985

FOREWORD

Over 30 million people with native languages other than English live in this country, and that number is growing rapidly. Hispanics, for example, are this nation's fastest growing minority, and according to projections, will be the largest minority group by the year 2000. In fact, some calculations show that the United States has the largest Spanish-speaking population in the world.

Two thirds of those who speak other languages were born in the United States, and many are proficient in English. However, limited English proficiency is common. Referring to school-age children, the increase of limited English proficiency among 5 to 14-year-olds is startling. From 1976 to 1982, LEP children as a percentage of the total population rose from 9.4 to 13.3 percent, a change of 41 percent.

These demographic phenomena present a challenge for vocational education. As we train our youth for the world of work, limited English proficiency is an additional barrier to capacitation. The problem is even more serious for those who enter this country as teenagers or adults. Vocational education needs to develop and implement effective training programs for limited English-proficient students. In fact, as the United States becomes increasingly involved in world markets, knowledge of more than one language may become to be considered a vocational skill.

JoAnn Crandall holds an undergraduate degree in English, Spanish, and Secondary Education from Ohio University, and a masters degree in American and British Literature from the University of Maryland. From Georgetown University she has a masters degree in Sociolinguistics, as well as a Ph.D. in Applied Linguistics. She has taught English as a second language, has published many articles, chapters, and studies on issues pertaining to bilingual education, and has served numerous consultancies on related issues around the country. Since joining the Center for Applied Linguistics in 1977, Dr. Crandall has directed various projects in refugee services, with special attention to language issues. She is currently Director of the Communication Services Division.

On behalf of the National Center for Research in Vocational Education and The Ohio State University, I am pleased to present this seminar by Dr. JoAnn Crandall.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

DIRECTIONS IN VOCATIONAL EDUCATION FOR LIMITED ENGLISH-PROFICIENT (LEP) STUDENTS AND ADULTS

Introduction

Approximately 28 million Americans now speak English as a second language. Because of refugee resettlement, immigration, and fertility rates within this population, that number is likely to increase to almost 40 million by the end of this century. Between 1976 and 1982, the number of language minority children in our schools increased by 27 percent, whereas the number of all other school-age children declined 13 percent. Former Secretary of Education, Terrell Bell, has predicted that by 1990, nearly 25 percent of all school-age children will be LEP students (Bell 1984).

Although the majority of this population (the youngest and the fastest growing in the United States) is Spanish-speaking, it also includes refugees and immigrants from around the world. During the last decade, approximately 1 million refugees entered the United States: 730,000 from Southeast Asia, 100,000 from the Soviet Union, 60,000 from Eastern Europe, 30,000 from Latin America, 25,000 from the Near East, and 12,000 from Africa (United States Department of State, 1985). For the next few years, we can expect at least 50,000 refugees to resettle annually in the United States. Immigration from Mexico, Central America, and other parts of the world also will continue.

The effects of these demographic shifts can be quite dramatic. In California schools, for example, there was a 39.5 percent increase in the school-age (K-12) LEP population between 1977 and 1980. Between 1976 to 1980, the Hispanic population increased 33.3 percent, the Asian population 41.1 percent, and the "white" population, 0.7 percent (Rezabek 1981).

It is not surprising, then, that in many school districts across the country, the LEP population is the majority population in the schools and a growing segment of the adult population as well. This population of adolescents and adults represents a challenge to vocational educators, not only because of their linguistic and cultural differences, but also because of their tendencies to be undereducated, underemployed, and their need for support services (transportation, child care, job counseling, job placement, and financial assistance), and language and skills training.

The focus of this paper is on issues within the field of vocational education as it applies to those adolescents and adults who speak a language other than English and who need language and skills training to function effectively in American jobs. This population is incredibly diverse; it represents different cultures and languages, different educational backgrounds and degrees of literacy, different employment experiences, different ages and social classes, and different expectations about education and employment, and may include refugees, migrants, immigrants, permanent residents, or citizens. Currently, some examples are:

- Adolescent Hmong, Mien, Haitian, Ehtiopian, or other refugees with limited education. Many are illiterate because their mother tongue was not a written language, and this compounds their difficulty in learning English and getting an education in the United States.

- Hispanic and native American citizens who dropped out of school (some as early as eighth grade) with limited vocational skills. Their command of oral English far exceeds their mastery of English reading or writing skills and their ability to function within academic and vocational environments.

- Polish, Cuban, or Vietnamese accountants, engineers, or secretaries with earned degrees from another country. Because they have different educational and occupational experiences and a limited command of English, it is difficult for them to transfer their skills to the United States.

- Lao, Cambodian, Mexican American, Ethiopian, and other women who are heads of households. They need language and skills training but have child care and other concerns which must be met before they can participate in this training.

- Second or third generation Lithuanians, Italians, Poles, or Hispanics. Since their English is limited, they cannot participate in job upgrading or skills retraining required by the increasing computerization and technological complexity of their work environments.

In the past decade, we have learned much about the programs, teaching practices, and materials that are most effective for vocational education and employment training for these populations. In the remainder of this paper, I will review some of what we have learned about providing effective vocational education and employment training to LEP Americans. These insights come from the following areas:

- Research and practice in second language learning and teaching

- The experiences of adult and vocational education and English-as-a-second-language (ESL) communities in meeting the needs of large numbers of refugees and immigrants

- Bilingual vocational training and instructor training programs.

Insights from Second Language Learning and Teaching

Four trends in current second language acquisition research and language teaching are particularly relevant to the delivery of vocational education to limited English-proficient adolescents and adults. These trends are as follows:

- The development of competency-based, functional, and task-oriented language learning programs

- The increasing specialization of language instruction, especially for adults, and the concomitant recognition that English can be combined with content area instruction in the secondary school

- The distinction between communicative and cognitive language skills

- The development of a theory of language that maximizes meaningful, relevant input as its basis

As I discuss each of these, I will explain their relevance for those designing vocational programs for second language speakers.

The Development of Competency-based, Functional, and Task-Oriented Language Learning Programs

Perhaps the most important trend in language teaching is the emphasis upon functional language—learning a second language so that one can *do* something with it. Adults, for example, might learn English for getting initial employment, enhancing their career, acquiring a high school equivalency diploma, or merely survival in the United States (Center for Applied Linguistics 1983; Crandall and Grognet 1983).

The adult ESL language class has become increasingly competency-based. Stated performance objectives can be measured and can serve to inform the student of progress made and goals to be accomplished. A competency-based curriculum can help the adult achieve a variety of goals: earning a high school equivalency diploma (and thus, entrance into previously closed educational programs); learning language to obtain and keep a job; gaining specific vocational English skills for a particular training area or employment situation; and learning to cope with being a newcomer, becoming more confident and proficient in living in the United States.

Instead of "mastering the past tense" or "memorizing a dialogue with key words," concepts that have dominated language teaching for 30 years, these programs are more concerned with helping adults develop the ability to use the language appropriately and effectively. Adults then can accomplish tasks that are clearly outlined and relevant to their basic goals. Those teaching adult ESL are not naive; we know that few people study language for enjoyment. They study language because it pays off, often in economic advancement. A quick look at new texts for adult ESL—*English for Adult Competency* (Keltner and others 1981), *English that Works* (Savage and others 1982), and *English for Your First Job* (Gage and Prince in press) and such audio-visual materials as *Working in the United States* (Center for Applied Linguistics 1984)—points out the emphasis on life skills and employability in most adult ESL programs and attests to the emphasis on usable English.

Languages for Specific Purposes and English through Content Areas

Because English is the language of international communication, technology transfer, and much business and accounting around the world, materials have existed for some time that teach specific English language structures, vocabulary, and text presentations and styles for a variety of professional, scientific, and academic areas. Thus, there are English courses for engineering, business management, biology or chemistry, hotel management, air traffic control, secretarial science, and a variety of other occupations in which English is an important language. However, most of these were written for students at advanced levels of English. Most assume students could not participate in special purpose language learning until they acquire a good command of oral and written English.

The presence of many LEP adults, especially in vocational training and retraining programs and in workplaces where specific English skills need to be upgraded, has resulted in an expansion of specific-English instruction courses. Courses now include pre-employment English—basic English, cultural orientation, and skills required to seek, find, and maintain a job, usually at an entry-level; prevocational ESL programs that prepare students for vocational training; and specific Vocational English-as-a second-language-(VESL) courses in welding, accounting, machine shop, data processing, clerical, food services, and other vocational training areas. Few of these courses, however, have resulted in field-tested or commercially available materials.

At the same time, we are learning that general ESL is inappropriate for adults and insufficient for students still enrolled in any level of education. The language skills required for mathematics learning, science problem-solving and inquiry, social studies discussions and writing are not those usually addressed in general ESL programs. Instead, we are becoming aware—though again, there is little research available to support our suspicions—that students need carefully coordinated language and content-area instruction, even in such seemingly "language-free" disciplines as mathematics. We also are realizing that instruction that uses concepts and procedures from these content areas for teaching the language may increase the motivation and success of the student in the other subjects and also the development of English language skills. (Crandall, Spanos, Rhodes, and Dale in press; Kessler and Quinn 1984; Levine 1985).

The Distinction between Communicative and Cognitive Language Skills

At the same time that classroom ESL instructors were experimenting with integrating more academic content into their ESL classes, a theory of language was developing that supported that movement. The theory helped to explain why a student's oral language skills in a second language could be so different from that same student's written language skills.

For example, some students seem to learn the language of their peers and are able to interact with them, but when they are in class, they are unable to read and write required assignments. Other students, however, become proficient at using a language to do academic work but are not successful in interacting with their peers.

Recent work by Cummins (1981) and Skutnabb-Kangas (1979) and Hakuta (in press) provides an explanation for this. Cummins, for example, suggests that there are two kinds of language proficiency: basic interpersonal communication skills (BICS), highly contextualized and mostly oral skills developed through peer interactions, and cognitive academic language proficiency (CALP), the more abstract, problem-solving or critical thinking skills required to function in a classroom, do academic tasks, and take tests. These skills are largely decontextualized: that is, there is little in the immediate environment or activity to provide additional cues for understanding. Cummins also proposes a "threshold hypothesis" that suggests that minority LEP children need to acquire a basic cognitive development in their native language before they can transfer these skills to a second language; otherwise, they will not become academically proficient in the second language.

Unfortunately, most of this research is with children, but it's obviously important to adolescents and adults as well. In a project in which I am involved at the Center for Applied Linguistics, (Crandall, Spanos, Dale, and Rhodes in press), we are analyzing the language of mathematics as a barrier to problem solving in mathematics and algebra, specifically among LEP college students. We are finding that even those students who seem to be very proficient in spoken English—including some native speakers of English—have problems with subtle differences signalled, for

example, by the terms *divided by* and *divided into*, *less* vs. *less than* or *increased by* vs. *multiplied by*. Language presents a problem at the vocabulary, syntactic, semantic, and discourse level. When a student, for example, is asked to write the equation for "there are eight times as many students as professors," many will follow the natural syntax of the statement and write 8s = lp, rather than the reverse. Problems that use *the number* and *a number* also are confusing, since students do not know whether one or two numbers are being asked for. When solving problems that deal with *cost*, *mark up*, and *selling price*, students who have no idea about business and pricing cannot begin to solve the problems, even though they may know the meaning of most of the words. Dawe (1984) has proposed a Cognitive Analytic Math Proficiency specifically to address these concerns. To understand that *although* signals a *contrast*, that *moreover* signals *addition*, and that *therefore* signals *effect*, one requires controlled exposure to texts and adequate opportunities to use these in conversation and in writing.

Ideally, these problems should be addressed early in the student's education, and after students have developed adequate language skills in their mother tongue. However, for the adolescent or adult who arrives in the United States with little previous education, addressing these problems is more difficult. Such students should first receive language training in their mother tongue, with emphasis on literacy and problem solving in their first language. If this is not possible, or if the adults do not want to acquire literacy in their mother tongue, then instruction in English should be supplemented by oral instruction in the mother tongue, with a focus on relationships between ideas or processes. Clearly, bilingual instruction could be helpful. Some vocational training areas may not require a knowledge of verbal relationships such as these, and students can learn skills through demonstration or observation. However, the distinction between learning language for social interaction and learning language for more abstract thinking is an important one for vocational educators.

The Development of a Theory of Language that Maximizes Meaningful, Relevant Input as Its Basis

A promising new theory of second language acquisition has been proposed by Krashen (1978, 1982) who identifies two ways of becoming proficient in a language: natural acquisition (for example, how a child learns a language) and conscious learning (the more painful way that most of us learned a foreign language). Krashen and other researchers believe that adults can acquire a second language much the same way children do. He believes this is possible if the learning environment focuses on the content or meaning of the interchange, rather than the rules of the language, and if the interchange is repeated or explained understandably and meaningfully. When that happens and when the learning environment is right, adults lose some of their fear of learning a language, of sounding childish or foolish, or of losing their identity. They then can relax and focus on the interesting and relevant nature of the task, rather than on the anxiety-producing rules of the language.

Why is this important for vocational trainers or for employers working with second language speakers? Because we can keep the learner's attention and assist the person in acquiring English, if we focus our student's or worker's attention on the task at hand; if we provide substantial opportunity and support within the environment; if the learner can understand and participate in the activity; and if we offer repetition and clarification in both written and oral forms, in more than one language, through demonstration as well as explanation, and through the use of peer tutors and problem-solving groups.

But, there is one important *caveat* here: the explanations, tasks, and other activities must be comprehensible to the learner. This is possible by using the first language, simplified texts and lec-

tures in English, demonstrations, or various other methods. Carefully controlled activities should focus on the procedure, process, or the product of the vocational class, with language used to relate to the activities being described, demonstrated, or practiced. Direct instruction (and thus, conscious learning activities) may be necessary in the more complex and abstract language skills required to understand and follow manuals, textbooks, spec sheets, blueprints, and the like, for second language learners to acquire vocational information or instruction from written materials, even simple ones.

Language instruction learning should be clearly integrated into the overall vocational instructional program so it is relevant to the student's overall educational goals. The specific language of the vocational or employment area—including vocabulary, special syntactic features, and complicated discourse frames, should be stressed.

These four trends in second language teaching and research argue for limited, focused language learning, an emphasis on learning vocational training rather than the language, and the use of a variety of methods (especially the use of the first language) for making the instruction understandable.

Insights from Refugee-Immigrant Vocational Educational Programs

We have also learned a great deal the past few years about refugee and immigrant education programs. Ten years ago, I wrote "The Characteristics of Successful Vocational ESL Programs" (Crandall 1979). In that paper, I listed the following criteria for the successful vocational ESL programs. It—

1. concentrates on the learner;
2. emphasizes that English can and should be learned for specific functions and domains;
3. specifies behavioral or performance objectives that are job-related and uses appropriate materials to achieve this;
4. operates as an integral part of a good vocational program (providing job counseling, placement, vocational training, and even work experience);
5. concentrates on functional skills;
6. builds upon the language and vocational skills the adult already possesses;
7. recognizes crosscultural differences, especially those related to educational and language learning.

Since then a number of manuals have been written on program development in vocational ESL and bilingual vocational training (Lopez-Valadez 1979; Troike, Golub, and Lugo 1981; Rezabek 1982; Shay and Seifer 1983; Friedenberg and Bradley 1984, 1984a, and 1984b). Sophisticated curriculum outlines also have been developed for a number of refugee ESL and employment programs. These outlines include those prepared for the educational programs now being offered in Southeast Asia and the Sudan (U.S. Department of State 1983) as well as those prepared for the

refugee programs in the United States, such as the Refugee Employment and Education curriculum from Virginia (Riney and Seufert-Bosco 1985). These guides and manuals generally agree on the needs that must be addressed in effective vocational training programs for LEP adults.

1. Language needs
2. Cultural orientation needs
3. Other educational needs
4. Support services needs
5. Vocational training needs

Language Needs

Vocational training programs for LEP students should include language for understanding instruction in the vocation and demonstration of mastery (e.g., test language) and for functioning on the job. Although students need listening, speaking, reading, and writing skills, they should not be taught to say what they will only need to understand others.

There is general agreement about the vocabulary that needs to be covered in these courses (Crandall 1979; Berry and Feldman 1980; Shay and Siefer 1983). This vocabulary includes technical vocabulary specific to a vocational area, a general subtechnical vocabulary that applies to many vocations, and basic English words. Examples of basic words are illustrated in table 1.

TABLE 1
VOCABULARY FOR VOCATIONAL ENGLISH PROGRAMS

VOCABULARY	Secretarial	Food Service
Technical	transcribe chron file font	bain marie dice saute bus (as in bus the tables)
Subtechnical	type copy	chop cut measure
General	function words—of, for, by, so, then, and, because, also, this, that, some, any, and so forth	

Students also need language to enable them to interact with other students, instructors, coworkers, supervisors, customers, and clients. This can be determined only by a needs assessment of the specific vocational area, considering instructional sites and workplaces and interviewing employees, supervisors, and customers. Much has been written on conducting needs assessments

for special purpose language programs and for vocational ESL programs (see Jupp and Hodlin 1975; Crandall 1979; Hoadley-Maidment 1980; Roberts 1982; West 1984).

Language to be included might best be identified by reviewing the language taught in *Working in the United States* (Center for Applied Linguistics 1984), a videotaped, employment-based ESL program designed to help refugees and immigrants function effectively on the job. This series was based on a review of employment surveys and selected interviews of refugees, employers, and service providers across the country. The course teaches the language for following directions, asking clarification, requesting assistance, responding to interruption and criticism, making small talk, requesting permission, apologizing for mistakes, and understanding workplace forms, signs, and safety language.

Cultural Orientation Needs

Many of the "language functions" in the Working in the United States series also include cultural behaviors or expectations. The most critical cultural orientation goal of the prevocational or preemployment training may be to explain the American expectation for questions and clarifications and to provide various linguistic and nonverbal ways of getting that clarification (for example, direct questions, partial repetition, rising intonation, or asking for a demonstration). In so many cultures, it is inappropriate to ask for assistance or clarification from a teacher or employer; to do so is to challenge that person's authority. Prince (1983) reports that one supervisor, when asked about LEP employees' performance, reported that they are positive toward work and dependable but that they needed to ask questions. Otherwise, the likely result is "1,000 perfect mistakes."

Other cultural patterns, especially those that might not have been part of the student's previous work experience, involve recognizing the importance of speed and quality, taking orders from a younger person or a female supervisor, knowing how to ask questions so one is not exploited, and recognizing that criticism is part of the American workplace and should not be viewed as an embarrassment or a reason for quitting.

All LEP students—whether adolescents or adults, whether unemployed or marginally employed—need orientation to the U.S. workplace, the American work ethic, the system of schedules and shifts, the expectations of other employees and supervisors regarding their behavior, and the working conditions or procedures that various jobs entail (such as assembly lines, working to specification, piece work, and so forth.) The National Commission on Secondary Education for Hispanics and the National Board of Inquiry into Schools both point out the importance of preparing young people to enter the changing world of work. They also stress the need to foster "the development of interpersonal traits that often make the difference between a young person's success and failure in the workplace." These traits include "social diplomacy, competitiveness, and striving" (Carnegie Corporation 1984; 1985). Some students need to learn about the competitive nature of American work, whereas with others that competition will need to be downplayed, especially if it involves working through breaks for which workers or unions have fought.

Part of the "social diplomacy" also entails understanding when and how to carry on informal, casual conversations with other employees and supervisors; and learning to indicate that one is listening and has understood the conversation. Again, we have learned a great deal from recent employer surveys and programs serving these populations, and a number of "world of work" curricula now are available. (Some of these are discussed in Crandall 1980, 1982; Baldwin 1982; Peterson and Berry 1984; Literacy '85 1985.)

Cultural factors also affect the way in which students prefer to learn. Their cognitive styles or preferences should be accommodated through a variety of learning experiences, preferably through individualized learning paths. This will allow each person to master those learning activities that are most comfortable. (The Vo-Tech Institute in White Bear Lake, Minnesota, has a sophisticated program to identify learning style preferences and to provide instruction in multiple ways to accommodate the preferences. See Knaak [1983] as well.)

Other Educational Needs

Since students vary in their previous educational and work experiences, one must assess basic skills, including literacy, numeracy or other computational skills, and basic analytical and problem-solving skills in the first and the second language. Unfortunately, few tests are available for this purpose, so individual tests may have to be devised and administered by a bilingual instructor or aide. Learning to read in one's mother tongue not only increases the depth of literacy skills in a second language, but, in fact, increases one's overall proficiency in that second language, even for adults. (Robson 1982; Burtoff in press) Thus, if there is an opportunity to provide native language literacy and if the student can understand the value of this option, it is a good option to consider.

Support Services Needs

Support services are needed, and in fact, they can make the difference between a successful and unsuccessful vocational training program for LEP students. These support services include child care, transportation, job counseling and development, job placement, appropriate scheduling, health and general counseling assistance, and financial support or work-training combinations. If a training program is located far from public transportation or the student's housing, participation may be difficult. If child care is not available, many potential applicants may not be able to participate. If training is for vocations in which there is little opportunity to be hired, or if the program does not provide job development and placement services, the training program is abdicating a basic responsibility. In some ways, job counselors, developers, and/or placement officers, who ideally are bilingual themselves, need to function as advocates for their trainees. They should help convince wary employers of the benefits of hiring an employee who knows two languages and who will also be a productive employee. (These placement officers should also follow the employees after placement, assist them with any problems, and evaluate their training program.)

Two services crucial to a successful program are outreach and intake. Outreach is especially important in reaching those potential trainees who may not know about training or how it can help them find a good job. Some individuals may believe that traditional academic education, provided by a community or other college, is the only road to success. They may believe that they have little likelihood of succeeding, since their English proficiency, prior education, or skills are limited. Effective outreach utilizes many community-based organizations and agencies, rather than relying on the capabilities of just one institution or the mass media (Peterson and Berry 1984). Unfortunately, many LEP adults who would profit most from bilingual vocational training may be those who are least likely to know about it or least confident about their ability. The concept of continuing education or combining work with school may need to be explained, and adults may need to be convinced that they can become students again (Crandall 1980). Specialized training of bilingual/bicultural outreach workers who function within the community and serve as intake counselors, job counselors, or bilingual instructional aides, can be very effective.

Equally important is intake and a general assessment of student English language proficiency, prior education, work experience, urban or rural background, discussion of potential financial or family-related problems, and anything that could impact on training. The intake counselor, again ideally a bilingual counselor, also should provide some "reality therapy" to those individuals who have unrealistic employment goals.

Unfortunately, few formal instruments are available for assessing the potential success of LEP adults in vocational training. Until recently, virtually no ESL test could be used to test illiterate or semiliterate students, or to test for job-related language proficiency. A few useful tests now exist, including BEST, HELP, and BVOPT tests and the various instruments developed for refugee programs overseas, but there is still a great need for development in this area. However, a series of bilingual vocational language tests can be developed, we need more research on the language demands of various jobs; otherwise, we will develop tests that are as irrelevant to training and job performance as many employment literacy tests are to overall job achievement. (Crandall 1981). The danger of this, of course, is that programs will use tests as a means of *excluding* potential trainees, rather than of accommodating the diverse skills and needs this population requires.

Vocational Training Needs

Some vocational educators are aware of the requirements (such as manual dexterity, hand-eye coordination, and physical strength) for participating in vocational training or employment training. However, I caution the use of timed tests, especially with those students who are new to this experience. I also recommend that students should be able to demonstrate their understanding and ability in a variety of ways, and that instructions not be completely verbal or in English. For example, potential trainees could observe and then follow or model the actions of an instructor or assessor.

One problem that may occur, especially with those students who have worked or have been educated in other countries, is establishing what that work or education really meant in their country. What does a nurse, economist, or mechanic do in Vietnam, Poland, Cuba, or Ethiopia? What skills are transferrable or adaptable? What skills are dysfunctional? What skills need to be learned for the first time?

All of these program factors, many of which have been learned through experience, demonstrate the need to provide special consideration and services to LEP students or trainees. This population cannot be mainstreamed into the same program that is offered to English-speaking youth or adults.

Insights from Bilingual Vocational Training and Instructor Training Programs

Program Models

In my 1980 paper to the National Center, I outlined four models of vocational education that meet the needs of LEP students. These four models—prevocational/preemployment ESL leading to employment, vocational ESL (VESL) and vocational training, bilingual vocational training, and ESL and on-the-job training—still represent the basic programs offered. Recently, though, the number of work-related programs, either VESL work experience (Kremer 1985) or workplace ESL (Prince 1984) programs, has increased substantially.

Each model is appropriate for particular situations and students. For example, the preemployment ESL programs offered to refugee students, both in the camps and in the United States, prepare refugees for entry-level jobs and focus on the language, cultural, and basic job skills necessary to get and keep a job. Vocational ESL combined with vocational training is appropriate when enough LEP students are in the same vocational program to provide a coordinated program, but when they are from a variety of linguistic groups, making bilingual vocational training difficult. VESL work experience and workplace ESL programs are usually offered when a number of LEP employees or potential employees are in the same worksite and from a number of ethnolinguistic groups. The focus is on the English used to perform the job at that particular site.

Ideally, bilingual vocational training should be offered whenever possible. However, it requires a fairly homogeneous ethnolinguistic student population to be practical. If a full bilingual vocational training program is not possible, some, bilingual components can be provided for vocational programs by translating segments of text, preparing supplementary texts or word lists, or obtaining assistance from bilingual aides, co-teachers or tutors.

Bilingual Program Components

Friedenberg and Bradley (1984) and others have suggested that the use of the following resources can help make a program more bilingual:

- Bilingual instructors
- Bilingual aides
- Bilingual peer tutors
- Bilingual instructional materials,
- Native language supplements to the English texts (vocabulary lists, cultural notes, or explanations of difficult concepts or procedures)

Strategies for Vocational Instruction of LEP Students

When bilingual instructors or materials are not available, a number of methods can help the vocational instructor meet the special linguistic needs of this population (Lopez-Valadez 1982; Friedenberg and Bradley 1984). The vocational instructor can do the following:

- Preview new vocabulary
- Provide opportunities for students to understand the meaning—demonstrate; use diagrams, slides, or outlines; use written explanations to support oral explanations
- Simplify vocabulary—in the beginning, at least, use more generic terms consistently and add variations later
- Allow sufficient time for all students
- Use gestures to reinforce oral communication

- Break down information into small, manageable units
- Use short sentences, repeating key terms and ideas
- Prepare handouts on key terms and questions to answer
- Speak slowly, at least at first
- Individualize instruction as much as possible
- Provide audiotapes of key words, in context, with explanations of their meaning

Whatever methods are used, instructors should not rely on the lecture, question-answer, or discussion approach. These activities require students to receive all their information through oral English. Instructors need to reduce dependence on language as a means of acquiring the skill (see Crandall 1980; Troike, Golub, and Lugo 1981; Kang 1982; Lopez-Valadez 1982). Also, tests should not consist solely of written or oral questions and answers; some opportunity to demonstrate mastery is important. Vocational instructors can acquire some of these skills by observing VESL teachers in ESL classes, since VESL teachers use these skills regularly in instruction.

Coordinated Vocational and English Language Instruction

Vocational and English language instructors can use a number of approaches to coordinate and integrate their instruction. A thorough introduction to each other's needs is one approach. The ESL instructor can visit vocational classes and potential job sites to collect data about the language, cultural considerations, and situations of the workplace. On the other hand, the vocational instructor can visit the ESL class to get a better understanding of a student's English proficiency and strategies that can convey the language in a simplified manner.

Coordination also can be provided by an integrated curriculum, although this is not likely to develop until the program has been operating for some time. Usually the first time a program is offered, the VESL teacher and vocational instructor meet at least once a week and observe each other's classes frequently. The VESL instructor might provide a preview session before the vocational class and then a review session following it. In other programs, the VESL and vocational teachers teach together in the same classroom. This can be helpful to the VESL teacher, since the tools, equipment, and manuals of the vocation are in the classroom, and helpful to the vocational instructor, who can turn to the VESL instructor when language becomes difficult.

The Role of VESL

Even in bilingual vocational programs, VESL programs should be taught. Most vocations in the United States require English. One is not always required to speak English to get a job: generations of refugees and immigrants have shown us that. However, to move beyond entry-level jobs, and especially for promotions, English is needed. Vocational English or VESL—the English needed to interact with English-speaking customers or employees, to fill out workplace forms, to use manuals or catalogs, or to talk on the telephone—is necessary to succeed on the job and be promoted.

Research Needs and Directions for the Future

Experience in second language instruction and vocational education for LEP students has taught us a great deal about program design, instructional strategies, and materials for instruction. However, we need to learn and do much more. Areas we need to learn more about include:

- Individual assessment and program evaluation
- Development of vocational materials and vocational language materials in English and the native language
- Revision of licensing and (re-)certification procedures
- Creation of programs to meet the needs of the *least* and *most* educated LEP students.

Individual Assessment and Program Evaluation

If I had presented this paper 3 years ago, I would have been unable to suggest an appropriate assessment instrument for adults who have little or no previous education, who are either nonliterate or marginally literate in their own language, and who speak only a little English. Now, however, we can assess language skills with the BEST test, a test that provides accurate assessment and placement for students in the beginning and intermediate levels of ESL. As a result of the refugee training programs, preemployment tests are available to test the English language, cultural behaviors and attitudes, and basic generic job skills such as measuring, working to a standard, working in an assembly line, sorting by alphanumeric codes, following directions in a sequence, verifying work, and other skills an adult may encounter in an entry-level job.

However, few tests that are written at an appropriate English language level and within appropriate cultural expectations are available to assess aptitude, vocational interest, or vocational language. Only one oral proficiency test that I know of is intended for use in bilingual vocational training programs (BVOPT). A tremendous need exists for development of placement tests, achievement tests, and tests to assess the skills students have and those they need. Without adequate tests, reliability and validity studies, and normative data, we must make judgments about our students that will not always be accepted by employers. Employers, in general, tend to have unrealistic expectations about the amount or kind of English their employees need to function effectively on the job. Too often, they judge prospective employees on spoken or written English, rather than on job skills or attitudes (Spero 1985). Job developers can help to provide more perspective here, but appropriate tests are needed as well.

A second need is for long-term evaluation studies that track LEP students in vocational training programs and measure their success. Frequently, programs consider a placement as a measure of success and do not follow-up on students to see if problems remain or if placement has continued. Recently, the U.S. Department of State has conducted a tracking study to measure the differential success of refugees who attended the English and cultural orientation education programs in refugee camps and to compare the effects of various postcamp experiences (continued education, work placement, and so forth). A series of studies like this could provide detailed guidance to program developers of optimal vocational programs for LEP students and could assure employers of the potential success of program graduates.

Development of Vocational Materials and Vocational Language Materials in English and the Native Language

A critical need also exists for accessible and appropriate vocational materials, especially those written in other languages and in simplified English. We now have available commercially preemployment ESL or prevocational ESL materials and guides for adapting ESL materials to specific workplaces or for developing program-specific materials. However, we still have few commercially available texts that combine vocational and language skills training into a coordinated text. We know how to conduct ethnographies of the workplace and the vocational classroom, to determine the language requirements of a job and the context in which the language is used, and to combine these into materials that can effectively present and sequence instruction. Materials that have been produced, though, tend to be program-specific without having been field tested nationally. We need more needs assessments in various classes and worksites across the country and more testing of materials. With a national network, we can produce preemployment and prevocational texts for adult ESL programs that can be widely distributed and commercially available. We still need, however, a more coordinated needs assessment and materials development effort within specific vocational areas and for appropriate integrated text series. One interesting effort, currently being undertaken by the Consortium on Employment Communication, is to identify core vocational English in several employment clusters. The results of the effort will help produce vocational English texts that can be used across occupations within the same field (e.g., service industries).

Some of the new educational technologies offer particular promise. For example, at the Center for Applied Linguistics we are currently working on a project to teach industrial English for the petroleum industry using interactive videodisc. The approach allows us to videotape actual training sites and vocational practice and to write appropriate English language scripts and materials. We then have a self-instructional, interactive learning system using audiocassette videodisc, and graphics controlled by the student with a touch-sensitive video screen. This technology is expensive. However, interactive videodiscs are being explored as a medium for teaching technical skills and technical training discs can be adapted for vocational language instruction. Thus, the initial development cost is justified in the final integrated language and vocational training program. Good bilingual vocational training programs or VESL vocational programs might investigate how vocational classes could be videotaped and used as the basis for VESL curriculum development.

Another need is for the development of simplified materials and texts that can be used with VESL instruction to support the LEP student who does not have access to a bilingual instructor. The language of most textbooks, especially when it is a second language, is complex, abstract, and difficult to understand. Some of that complexity can be reduced through formatting, breaking ideas down into smaller segments, simplifying sentence structure, and standardizing vocabulary. This would certainly help the LEP student, and might benefit other students as well.

Native language vocational materials, either complete texts or supplementary materials, that can be used with existing vocational texts are also needed, especially in languages other than Spanish. Ideally, the materials would be produced by curriculum writing teams. The teams could integrate materials addressing both the vocational language and the vocation, and for languages with smaller numbers of students, provide native language supplements in the form of glossaries, chapter outlines, or summaries of the text material. Here, again, audio-visual approaches should be tried.

Revision of Licensing and Certification/ Recertification Procedures

Even though we are more knowledgeable about the language and skills required for functioning in various jobs, the state boards or agencies who license and certify seem oblivious to this. Thus, we have an absurd situation in which a cosmetology student who can demonstrate mastery of the various tasks involved in the job is unable to practice because a state exam is given in English. We also have, for example, a mechanic who can repair and maintain automobiles but is unable to pass the state licensing exam because he cannot read the English in the test. Although we have come a long way in helping to accommodate LEP students in our vocational training, we have not begun to attack the certification and licensing procedures.

If we can develop appropriate evaluation measures which do not rely on the complex English in standardized tests, then we can design appropriate changes in the certification and licensing procedures. Some states have addressed this with more sensitivity than others; these could serve as models. For example, one state allows an interpreter to be present at an exam, but only if that interpreter knows little or nothing about the vocation being tested. Perhaps this approach could be used instead of written exams or in those occupations where the oral English language requirements of a job are minimal. Native language adaptations of the tests could also be developed, or students could bring bilingual dictionaries into the examination room, to use for translations only.

I do not have many answers, but I know that this is one of the most serious problems we face. Otherwise, we find ourselves preparing students for jobs they will never be able to fill because they will never pass the required exams.

Creation of Programs to Meet the Needs of the Least and Most Educated Student

Preventing students from entering training programs because of their limited education or English, rather than finding ways to accommodate them, is almost as bad as preparing them for jobs they will not be able to fill. For many reasons, LEP adolescents and women are particularly underserved. Too many LEP students lack access to vocational education and training at the secondary school level and beyond. LEP secondary school students are dropping out before we can serve them, and little effort is being made to prevent them from leaving school. Approximately 40 percent of Hispanics students drop out before 10th grade and another 10 percent leave before graduation (Rendon 1983).

In assessing American education, many reports have emphasized tighter requirements, an increased number of required courses, and mandatory exit tests. Little attention has been given to educational equity or meeting the needs of those students who are most at risk. James Vasquez, the superintendent of the San Antonio Edgewood School District, has a right to be worried about this situation. He says, "The prevailing attitude in the school system is that you develop excellence through exclusivity. In the past, when poor and minority kids were kept out of the schools, test scores were high. Now people are saying, 'Let's exclude them again, the scores will go up, and we can all boast that American education is in great shape.'" (Carnegie Corporation 1984; 1985)

This attitude also is present in vocational education programs that have waiting lists from which they select the best or most prepared students. The effect of those policies on LEP populations is obvious: exclusion. Yet, bilingual vocational education or training can keep students in

school and help them. Programs should not select only the best students and leave others on waiting lists.

Refugee and immigrant women represent another group which is underserved by current vocational or prevocational educational programs. Because of their limited English, low literacy, limited experience in American workplaces, child care needs, and other problems, these women are often the last to be accommodated in vocational training or preemployment programs. A 1985 survey of this population entitled In America and In Need (Spero 1985) conducted by the Women's Bureau of the U.S. Department of Labor, indicates their dire need. These women are often excluded from training programs because local services select the persons who are most easily placed in jobs, and these women are not viewed as easy placements. Some innovative women's ESL and preemployment programs began during the late 1970's, but federal budget cuts have drastically affected these programs.

Although women and youth of limited education are inadequately served by today's programs, so are the better-educated students. It is a terrible waste of bilingual resources to take nurses, pharmacists, teachers, and others with important skills, and then to put them in training programs which do not attempt—even on a long-term basis—to upgrade their English skills so that they can eventually work in the area in which they were trained. This is especially sad because social service agencies, public health clinics, and schools need bilingual staff who can interpret, translate, and understand the culture of the client population. We need to serve this population as well in bilingual vocational training programs. This could be done perhaps at community colleges, where other bilingual vocational training programs can provide guidance in program development. In some cases, what is required is only a follow-up of programs that already exist; thus, if there is an allied health or paraprofessional program for LEP students, a second program in pharmacy or public health could be developed to expand on the first. Students could be trained for a similar paraprofessional job, given a chance to practice at that level, and then brought back for additional training in their profession.

Conclusion

This is an exciting time to be involved with vocational training for LEP students. As we look back over the past 10 years, we can take pride in our accomplishments. But we cannot look back for long; too much remains to be done.

QUESTIONS AND ANSWERS

JoAnn Crandall

Question: What adult career intake assessment tests are available?

Some years ago, we evaluated limited English-proficiency tests. (The TESOL Organization is doing a text now with a comprehensive annotated bibliography.) However, we found that few tests are available, and few look at employability. How do we make predictions, then, about employability? Well, we assume people basically will do all right on the job, although they have to master some tasks. We may have a sense of some global language concerns, but we really don't have anything predictive. As far as I know, there are very few interest inventories or vocational tests appropriate for use with other language speakers. So, we end up doing what they do in other programs: a bilingual, bicultural worker might give the student a reading passage or a few math problems to see if the students can solve them, or ask the student what he or she did in his or her country, or what some of the things are that he or she can do here. It's just not much information. It would be a lot more useful if we had tests to show individuals' skills.

Question: Do you see bilingual instruction as a threat to the shared values that are based on a common language?

No, since any program that doesn't have VESL or ESL as a component is not a successful program. To help foreigners become functioning members of American society, programs also must include crosscultural information, explanations of dominant values, and the work ethic. The issue seems to be how to keep a country together without somehow doing away with people's language skills? It can be done. Look at the rest of the world; for example, Indonesia. Indonesia consists of diverse populations, yet, almost everyone also speaks Indonesian. I don't believe we are threatened by a separatist movement in the United States, but there's another and, I think, even more important consideration here. Our language policy is schizoid: we ask kids to forget their mother tongues; then we ask them to study a foreign language in high school. Then we complain that as a nation, we can't meet our language needs. In effect, we train people to speak languages that we've already tried to get others to forget. It's a gross waste of human effort.

It's possible for someone to become fluent in English and still maintain their native language. The reason for bilingual instruction for adults is to enable those adults to use their years of cognitive development in their first language. To ask people to wait until they learn English before they are taught a skill or vocation is unfair and unnecessary. Skills can be addressed with a bilingual approach (though I am not necessarily a proponent of *all* bilingual instruction). In many cases, simplified English and first language supports such as glossaries and summaries can help adults learn. Then, the individual can both learn the vocation and acquire the English necessary to do a job.

Question: Are there model programs dealing with group guidance or career information systems?

I can think of no universal models. Much of what works is determined by the expectations of the client populations. If the client population doesn't seek assistance outside the community, that's the first barrier to providing counsel or guidance. If the issues must be addressed from within, indirect guidance and counseling is necessary. Often, a guidance person can identify someone in the community who can serve as the source of directed guidance. If someone who is sensitive to guidance and counseling issues is not available to the program, you've got serious problems. Someone who is a community member might be asked to serve as a bridge. A Vietnamese member of the community might not know exactly what you want to achieve, but that person will know how to get something done within the community and the two of you can work together.

Question: What are one or two priorities that the National Center should consider for our future agenda?

Helping LEP adults make long-term planning and career goals could be one priority. Much of our focus today is on the first job, not on a career ladder for the LEP student. For students and teenagers, programs that keep them in school or help them to find training programs outside the school are important.

Question: Without good data on individuals or groups of individuals, it's very hard to counsel with them. It seems to me our information systems, be it computerized or on paper, are very inadequate for this population. We've been in the refugee business for a long time. It seems to me, at one time there was a kind of a self-help peer counseling, peer tutoring system, mainly through the Lutheran Refugee Service and the Catholic Social Services. I just wondered if there is some real movement of this kind now?

With any new community or new group, basically it has to be somebody from the outside who helps to make these kinds of decisions initially. Very quickly in any community, leaders arise, and they then become the best source of any kind of program implementation, any kind of program planning. However, we need to remember that the bilingual community member is often in a real bind, and any time we put people into the role of being crosscultural interpreters or crosscultural brokers, we have to remember that there are lots of reasons within their own community that they have to do and say things, and there are lots of reasons why within the majority community they're expected to say and do other things. Thus, the bilingual counselor probably needs an outsider to assist, because it's a very difficult role to play. In some ways, that person becomes a power broker, whether he or she wants to or not. We need to encourage peer support systems, but monitor them carefully.

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